

PATENT  
ATTORNEY DOCKET NO.: UCSD1630-1

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants:	Fenical et al.	Art Unit:	1651
Patent No.:	7,144,723 B2	Examiner:	I. Marx
Issued:	December 5, 2006	Conf. No.:	7755
Application No.:	09/991,518		
Filed:	November 16, 2001		
Title:	MARINE ACTINOMYCETE TAXON FOR DRUG AND FERMENTATION PRODUCT DISCOVERY		

**CERTIFICATES OF CORRECTION BRANCH**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 CFR §1.322**

Sir:

Applicants hereby request that a Certificate of Correction be issued for the above-identified patent in accordance with 37 C.F.R. §1.322.

Attached hereto are Fifteen (15) Sheets of PTO Form SB/44, identifying the errors by reference to sequence listing beneath columns 13 and 14 of the issued patent.

All errors sought to be corrected were made by the United States Patent and Trademark Office in transcribing the information in the pending application to the issued patent. Accordingly, Applicants submit that the Request for Certificate of Correction does not raise issues of new matter.

In re Patent of:  
Fenical et al.

PATENT  
Attorney Docket No.: UCSD1630-1

Patent No.: 7,144,723 B2  
Issued: December 5, 2006  
Application No.: 09/991,518  
Filed: November 16, 2001  
Page 2

In view of the above statements and the attachments, it is respectfully requested that a Certificate of Correction for U.S. Patent No. 7,144,723 B2 be issued.

If a telephone conference with Applicants' representative may be of assistance, Applicants' representative can be reached at the phone numbers and address below.

No fee is deemed necessary in connection with the filing of this Request for Certificate of Correction under 37 C.F.R. §1.322. However, if any fee is required, the Commissioner is hereby authorized to charge any other fees associated with the filing submitted herewith, or credit any overpayments to Deposit Account No. 07-1896.

Respectfully submitted,



Lisa A. Haile, J.D., Ph.D.  
Registration No. 38,347  
Telephone: (858) 677-1456  
Facsimile: (858) 677-1465

**USPTO Customer Number 28213**  
DLA PIPER US LLP  
4365 Executive Drive, Suite 1100  
San Diego, CA 92121-2133

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 1 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Following columns 13 and 14, delete the entire Sequence Listing and replace with the Sequence Listing as follows:

SEQUENCE LISTING

```

<160> NUMBER OF SEQ ID NOS: 9

<210> SEQ ID NO 1
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial sequence

<223> Amplification primer

<400> SEQUENCE: 1
      agagtttgat cctggctcag

<210> SEQ ID NO 2
<211> LENGTH: 22
<212> TYPE: DNA
<213> ORGANISM: Artificial sequence

<223> Amplification primer

<400> SEQUENCE: 2
      tacggctacc ttgttacgac tt
  
```

20

22

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 2 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 3	
<211> LENGTH: 1479	
<212> TYPE: DNA	
<213> ORGANISM: <i>Salinospora</i> sp. CNH643 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 3	
agagttttagt cctggcttag gacgaacgct ggccgggtgc ttaacacatg caagtcgagc	60
ggaaaggccc ttccgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatatgacc atctgtcgca	180
tggtgggtgg tggaaagatt tttggcttg ggatgggctc gcggcctatc agcttggtag	240
tgggtgatg gcctaccaag gcggcgacgg gtggccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat cttgcacaat	360
ggcggaagc ctgatgcagc gacgcccgt gagggatgac ggccttcggg ttgtaaacct	420
ctttcagcag ggacgaagcg tttgtgacgg tacctgcaga agaagcgccg gccaaactacg	480
tgccagcagc cgccgttaaga cgtagggcgc aagcgttgc cggattttt gggcgtaaag	540
agctcgtagg cggcttgcg cgtcgactgt gaaaaccctg ggctcaactg cgggcttgca	600
gtcgatacgg gcaggctaga gttcggtagg ggagactgga attcctggtg tagcggtgaa	660
atgcgcagat atcaggagga acaccggtagg cgaaggcggg tctctgggcc gataactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 3 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttggcgct ctaggtgtgg ggggcctctc cggttctctg tgccgcagct aacgcattaa	840
gcgcggcc tggggagttac ggccgcaagg ctaaaactca aaggaattga cggggccccg	900
cacaagcggc ggagcatgct gattaattcg atgcaacgctg aagaacctta cctgggtttg	960
acatcgccgg aaatccttca gagatgggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgct agctcggtc gtgagatgtt gggtaagtc ccgcaacgag cgcaaccctt	1080
gttcgatgtt gccagcgcgt tatggcgaaa actcatcgaa gactgccggg gtcaactcgg	1140
aggaaggtgg ggatgacgct aagtcatcat gccccttatg tccagggtt cacgcatgct	1200
acaatggccg gtacagtggg ctgcgataacc gtgaggtgga gcgaatccca aaaagccgt	1260
ctcagttcgg atcgggtct gcaactcgac cccgtgaagt cggagtcgct agtaatcgca	1320
gatcagcaac gctgcgggtga atacgttccc gggcattgtt cacaccggcc gtcacgtcac	1380
gaaagtccgc aacacccgaa gccgggtggcc taacccttgtt ggggggagcc gtcgaagggt	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtagccgt	1479

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 4 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 4	
<211> LENGTH: 1479	
<212> TYPE: DNA	
<213> ORGANISM: <i>Salinospora</i> sp. CNH646 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 4	
agagtttgat cctggcttag gacgaacgct ggccggcgtgc ttaacacatg caagtcgagc	60
ggaaaggccc ttccgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatatgacc atctgtcgca	180
tggtgggtgg tggaaagatt tttggcttg ggatgggctc gcggcctatc agcttggtag	240
tggggtgatg gcctaccaag gcggcgacgg gtatccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat cttgcacaat	360
ggcggaagc ctgatgcagc gacgcccgcgt gagggatgac ggccttcggg ttgtaaacct	420
ctttcagcag ggacgaagcg tttgtgacgg tacctgcaga agaagcgccg gccaactacg	480
tgccagcagc cgccgttaaga ctagggcgc aagcggtgtc cggattttt gggcgtaaag	540
agctcgtagg cggcttgcg cgtcgactgt gaaaaccgt ggctcaactg cgggcttgca	600
gtcgataacgg gcaggctaga gttcggtagg ggagactgga attcctggtag tagcggtgaa	660
atgcgcagat atcaggagga acaccggtagg cgaaggcggg tctctgggcc gataactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 5 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttgggcg ctaggtgtgg ggggcctctc cggttctctg tgccgcagct aacgcattaa	840
gcgcgcccccgc tggggagttac ggccgcaagg ctaaaactca aaggaattga cgggggccccg	900
cacaagcggc ggagcatgctg gattaattcg atgcaacgctg aagaacctta cctgggttg	960
acatcgccgg aaatccttca gagatggggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgctc agctcggtc gtgagatgtt gggtaagtc ccgcaacgag cgcaaccctt	1080
tttcgatgtt gccagcgcgt tatggcgggg actcatcgaa gactgccggg gtcaactcgg	1140
aggaaggtgg ggatgacgctc aagtcatcat gcccattatg tccagggctt cacgcatgct	1200
acaatggccg gtacagtggg ctgcgataacc gtgagggtgga gcgaatccca aaaagccggt	1260
ctcagttcgg atcgggtct gcaactcgac cccgtgaagt cggagtcgt agtaatcgca	1320
gatcagcaac gctgcgggtga atacgttccc gggcattgtt cacaccgccc gtcacgtcac	1380
gaaagtccggc aacacccgaa gccggtgcc taacccttgtt gggggagcc gtcgaaggtg	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtagccgt	1479

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 6 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 5	
<211> LENGTH: 1479	
<212> TYPE: DNA	
<213> ORGANISM: <i>Salinospora</i> sp. CNH898 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 5	
agagttttagt cctggcttag gacgaacgct ggcggcgtgc ttaacacatg caagtgcagc	60
ggaaaggccc ttccgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatatgact ggctgccgca	180
tggtggttgg tggaaagatt tttggcttg ggatgggctc gcggcctatc agcttggtag	240
tgggtgtatg gcctaccaag gcggcgacgg gtatccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat ctgcacaat	360
ggcggaagc ctgatgcagc gacgcccgt gagggatgac ggccttcggg ttgtaaacct	420
ctttcagcag ggacgaagcg tttgtgacgg tacctgcaga agaagcgccg gccaactacg	480
tgccagcagc cgccgttaaga cgtagggcgc aagcgttgc cggattttt gggcgtaaag	540
agctcgttagg cggcttgcg cgtcgactgt gaaaaccgt ggctcaactg cgggcttgca	600
gtcgatacgg gcaggctaga gttcggtagg ggagactgga attcctggtg tagcggtgaa	660
atgcgcagat atcaggagga acaccggtagg cgaaggcggg tctctgggcc gataactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 7 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttgggcg ctaggtgtgg ggagcctctc cggttctctg tgccgcagct aacgcattaa	840
gcgc(ccc)gccc tggggagttac ggccgcaagg ctaaaactca aaggaattga cgggggccccg	900
cacaaggcggc ggagcatgctg gattaattcg atgcaacgctg aagaacctta cctgggtttg	960
acatcgccgg aaatccttca gagatggggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgctc agctcggtgc gtgagatgtt gggtaagtc ccgcaacgag cgcaaccctt	1080
gttcgatgtt gccagcgcgt tatggcgggg actcatcgaa gactgccggg gtcaactcgg	1140
aggaaggtgg ggatgacgctc aagtcatcat gccccttatg tccagggtt cacgcatgct	1200
acaatggccg gtacaatggg ctgcgataacc gtgaggtgga gcgaatccca aaaagccggt	1260
ctcagttcgg atcgggtct gcaactcgac cccgtgaagt cggagtcgct agtaatcgca	1320
gatcagcaac gctgcggta atacgttccc gggcattgta cacaccgccc gtcacgtcac	1380
gaaagtccggc aacacccgaa gccggtgcc taacccttgt ggggggagcc gtcgaagggtg	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtaggccgt	1479

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO.: 7,144,723 B2

Page 8 of 15

APPLICATION NO.: 09/991,518

ISSUE DATE: December 5, 2006

INVENTOR(S): Fenical et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 6	
<211> LENGTH: 1480	
<212> TYPE: DNA	
<213> ORGANISM: Salinospora sp. CNH440 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 6	
agagttttagt cctggcttag gacgaacgct ggcggcgtgc ttaacacatg caagtgcagc	60
ggaaaggccc ttccgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatatgact ggctgccgca	180
tggtggttgg tggaaagatt tttggcttg ggatgggctc gcggcctatc agttgttgg	240
tgggtgatg gcctaccaag gcggcgacgg gtacccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat cttgcacaat	360
ggcggaagc ctgatgcagc gacgcccgcgt gagggatgac ggccttcggg ttgtaaacct	420
cttcagcag ggacgaagcg ttgtgacgg tacctgcaga agaagcgccg gccaaactacg	480
tgccagcagc cgccgttaaga cgtagggcgc aagcggtgtc cggatttatt gggcgtaaag	540
agctcgtagg cggcttgcg cgtcgactgt gaaaaccgt ggctcaactg cgggcttgca	600
gtcgatacgg gcaggctaga gtcggtagg ggagactgga attcctggtg tagcggtgaa	660
atgcgcagat atcaggagga acaccggtgg cgaaggcggg tctctgggcc gatactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 9 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttggcgct ctaggtgtgg ggagcctctc cggttctctg tgccgcagct aacgcattaa	840
gcgcggcc tggggagttac ggccgcaagg ctaaaactca aaggaattga cgggggccccg	900
cacaagcggc ggagcatgct gattaattcg atgcaacgctg aagaacctta cctgggtttg	960
acatcgccgg aaatccttca gagatggggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgct agctcggtgc gtgagatgtt gggtaagtc ccgcaacgag cgcaaccctt	1080
gttcgatgtt gccagcgcgt tatggcgaaa actcatcgaa gactgccggg gtcaactcgg	1140
aggaaggtgg ggatgacgta aagtcatcat gccccttatg tccagggtt cacgcatgct	1200
acaatggccg gtacaatggg ctgcgatacc gtgaggtgga gcgaatccca aaaagccggt	1260
ctcagttcgg atcgggtct gcaactcgac cccgtgaagt cggagtcgct agtaatcgca	1320
gatcagcaac gctgcggta atacgttccc gggccttgta cacaccgccc gtcacgtcac	1380
gaaagtccgc aacacccgaa gccgggtggcc taacccttgt ggggggagcc gtcgaagggtg	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtagccgta	1480

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 10 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 7	
<211> LENGTH: 1479	
<212> TYPE: DNA	
<213> ORGANISM: Salinospora sp. CNH536 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 7	
agagttttagt cctggcttag gacgaacgct ggcggcgtgc ttaacacatg caagtgcagc	60
ggaaaggccc ttccgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatattgact ggctgccgca	180
tggtggttgg tggaaagatt tttggcttg ggatggctc gcggcctatc agcttggtag	240
tgggtgtatg gcctaccaag gcggcgacgg gtagccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat cttgcacaat	360
ggcggaagc ctgatgcagc gacgcccgt gagggatgac ggccttcggg ttgtaaacct	420
ctttcagcag ggacgaagcg tttgtgacgg tacctgcaga agaagcgccg gccaactacg	480
tgccagcagc cgccgttaaga cgtagggcgc aagcgttgc cggattttt gggcgtaaag	540
agctcgtagg cggcttgcg cgtcgactgt gaaaaccgt ggctcaactg cgggcttgca	600
gtcgatacgg gcaggctaga gttcggtagg ggagactgga attcctggtg tagcggtgaa	660
atgcgcagat atcaggagga acaccggtagg cgaaggcggg tctctgggcc gataactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 11 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttgggcg ctaggtgtgg ggagcctctc cggttctctg tgccgcagct aacgcattaa	840
gcgcgccgccc tggggaggtac ggccgcaagg ctaaaaactca aaggaattga cgggggccccg	900
cacaagcggc ggagcatgcg gattaattcg atgcaacgcg aagaacctta cctgggtttg	960
acatcgccgg aaatccttca gagatggggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgtc agctcggtc gtgagatgtt gggtaagtc ccgcaacgag cgcaaccctt	1080
gttcgatgtt gccagcgcgt tatggcgggg actcatcgaa gactgccggg gtcaactcgg	1140
aggaaggtgg ggatgacgtc aagtcatcat gccccttatg tccagggctt cacgcatgct	1200
acaatggccg gtacaatggg ctgcgataacc gtgagggtgga gcgaatccca aaaagccggt	1260
ctcagttcgg atcgggtct gcaactcgac cccgtgaagt cggagtcgct agtaatcgca	1320
gatcagcaac gctgcggta atacgttccc gggccttcta cacaccgccc gtcacgtcac	1380
gaaagtccgc aacacccgaa gccggtgcc taacccttgt gggggagcc gtcgaaggtg	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtagccgt	1479

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 12 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 8	
<211> LENGTH: 1479	
<212> TYPE: DNA	
<213> ORGANISM: Salinospora sp. CNH725 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 8	
agagttttagt cctggcttag gacgaacgct ggccgggtgc ttaacacatg caagtcgagc	60
ggaaaggccc ttccgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatatgacc atctgtcgca	180
tggtgggtgg tggaaagatt ttttggcttg ggatgggctc gcggcctatc agcttggtag	240
tgggtgatg gcctaccaag gcggcgacgg gtagccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat cttgcacaat	360
ggcggaagc ctgatgcagc gacgcccgt gagggatgac ggccttcggg ttgtaaacct	420
ctttcagcag ggacgaagcg tttgtgacgg tacctgcaga agaagcgccg gccaaactacg	480
tgccagcagc cgccgttaaga cgtagggcgc aagcggtgtc cggatttatt gggcgtaaag	540
agctcgtagg cggcttgcg cgtcgactgt gaaaaccgt ggctcaactg cgggcttgca	600
gtcgatacgg gcaggctaga gttcggtagg ggagactgga attcctggtg tagcggtgaa	660
atgcgcagat atcaggagga acaccggtagg cgaaggcggg tctctgggcc gataactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 13 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttggcgc ctaggtgtgg gggccctctc cggttctctg tgccgcagct aacgcattaa	840
gcgcggccgc tggggagttac ggccgcaagg ctaaaactca aaggaattga cgggggccccg	900
cacaagcggc ggagcatgct gattaattcg atgcaacgctg aagaacctta cctgggtttg	960
acatcgccgg aaatccttca gagatgggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgctc agctcggtgc gtgagatgtt gggtaagtc cgcacacgag cgcaaccctt	1080
gttcgatgtt gccagcgcgt tatggcgggg actcatcgaa gactgccggg gtcaactcg	1140
aggaaggtgg ggatgacgctc aagtcatcat gcccattatg tccagggctt cacgcatgt	1200
acaatggccg gtacagtggg ctgcgataacc gtgagggtgg gcaatccca aaaagccggt	1260
ctcagttcgg atcggggctc gcaactcgac cccgtgaagt cggagtcgct agtaatcgca	1320
gatcagcaac gctgcggta atacgttccc gggcattgta cacaccgccc gtcacgtcac	1380
aaaagtcggc aacaccgaa gccggtgcc taacccttgt gggggagcc gtcgaagggt	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtagccgt	1479

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 14 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

<210> SEQ ID NO 9	
<211> LENGTH: 1479	
<212> TYPE: DNA	
<213> ORGANISM: Salinospora sp. CNH964 16S ribosomal RNA gene, partial sequence	
<400> SEQUENCE: 9	
agagtttgat cctggcttag gacgaacgct ggcggcgtgc ttaacacatg caagtgcagc	60
ggaaaggccc ttcgggtac tcgagcggcg aacgggttag taacacgtga gtaacctgcc	120
ccaggctttg ggataacccc gggaaaccgg ggctaataacc ggatatgacc atctgtcgca	180
tggtgggtgg tggaaagatt tttggcttg ggatggcgtc gcggcctatc agcttggtag	240
tgggtgatg gcctaccaag gcggcgacgg gtagccggcc tgagagggcg accggccaca	300
ctgggactga gacacggccc agactcctac gggaggcagc agtggggat cttgcacaat	360
ggcggaagc ctgatgcagc gacgcccgt gagggatgac ggccttcggg ttgtaaacct	420
ctttcagcag ggacgaagcg tttgtgacgg tacctgcaga agaagcgccg gccaaactacg	480
tgccagcagc cgccgttaaga cgtagggcgc aagcgttgc cggattttt gggcgtaaag	540
agctcgtagg cggcttgcg cgtcgactgt gaaaacctgt ggctcaactg cgggcttgca	600
gtcgatacgg gcaggctaga gttcggtagg ggagactgga attcctggtg tagcggtgaa	660
atgcgcagat atcaggagga acaccggtagg cgaaggcggg tctctgggcc gataactgacg	720

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,144,723 B2  
 APPLICATION NO.: 09/991,518  
 ISSUE DATE: December 5, 2006  
 INVENTOR(S): Fenical et al.

Page 15 of 15

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ctgaggagcg aaagcgtggg gagcgaacag gattagatac cctggtagtc cacgctgtaa	780
acgttggcgct ctaggtgtgg gggcctctc cggttctctg tgccgcagct aacgcattaa	840
gcgcggccgc tggggagttac gcccgaagg ctaaaactca aaggaattga cggggccccg	900
cacaagcggc ggagcatgct gattaattcg atgcaacgctg aagaacctta cctgggtttg	960
acatcgccgg aaatccttca gagatgggg gtccttcggg gccggtgaca ggtggtgcat	1020
ggctgtcgct agctcggtgc gtgagatgtt gggtaagtc ccgcaacgag cgcaaccctt	1080
gttcgatgtt gccagcgcgt tatggcgggg actcatcgaa gactgccggg gtcaactcgg	1140
aggaagggtgg ggatgacgct aagtcatcat gccccttatg tccagggtt cacgcgtct	1200
acaatggccg gtacagtggg ctgcgataacc gtgaggtgga gcgaatccca aaaagccgt	1260
ctcagttcgg atcgggtct gcaactcgac cccgtgaagt cggagtcgct agtaatcgca	1320
gatcagcaac gctgcggta atacgttccc gggccttcta cacaccgccc gtcacgtcac	1380
gaaagtccgc aacacccgaa gccggggcc taacccttgt ggggggagcc gtcgaagggtg	1440
gggctggcga ttgggacgaa gtcgtaacaa ggtagccgt	1479

Lisa A. Haile, J.D., Ph.D., Reg. No. 38,347  
 DLA Piper US LLP  
 4365 Executive Drive, Suite 1100  
 San Diego, California 92121-2133  
 (858) 677-1456

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.